WHAT IS CLAIMED IS:

1. An ignition coil device comprising:

a cylindrical secondary spool;

a secondary coil wound around an outer peripheral surface of the secondary spool;

a coil insulating resin material that is filled into spaces between secondary windings of the secondary coil;

a primary spool arranged on an outer peripheral side of secondary coil;

a primary coil wound around an outer peripheral surface of the primary spool;

a connector that is arranged on one end side in an axial direction of these parts and has a connector terminal electrically connected to the primary coil and the secondary coil; and

a resin insulting material for connector that is filled into the connector,

wherein the coil insulating resin material has a base material which is the same as or different from a base material of the connector insulating resin material.

2. The ignition coil device as claimed in claim 1, wherein the coil insulating resin material is separately arranged from the connector insulating resin material.

3. The ignition coil device as claimed in claim 1, wherein insulating resin material other than the coil insulating resin

material and the connector insulating resin material is not filled.

4. The ignition coil device as claimed in claim 1, wherein the connector insulating resin material has the percentage of content of voids higher than the percentage of content of voids of the coil insulating resin material.

5. The ignition coil device as claimed in claim 1, wherein at least one of the base material of the coil insulating resin material and the base material of the connector insulating resin material is epoxy resin.

6. The ignition coil device as claimed in claim 1, wherein fillers are distributed in the base material of the coil insulating resin material and in the base material of the connector insulating resin material, and wherein the percentage of content of the fillers relative to the base material of the connector insulating resin material is higher than the percentage of content of the fillers relative to the base material of the coil insulating resin material.

7. The ignition coil device as claimed in claim 6, wherein the percentage of content of the filler of the connector insulating resin material is 55 % or more by weight in a case where the whole connector insulating resin material is 100 % by weight, and wherein the percentage of content of the fillers of the coil

insulating resin material is less than 55 % by weight in a case where the whole coil insulating resin material is 100 % by weight.

8. The ignition coil device as claimed in claim 6, wherein the fillers are inorganic fillers including one element selected from the group consisting of crystalline silica, mica, talc, fused silica, and alumina.

9. The ignition coil device as claimed in claim 1, wherein fillers are distributed in the base material of the coil insulating resin material and the base material of the connector insulating resin material, and wherein the fillers of the connector insulating resin material are large in size than the fillers of the coil insulating resin material.

10. The ignition coil device as claimed in claim 9, wherein the fillers are inorganic fillers including one element selected from the group consisting of crystalline silica, mica, talc, fused silica, and alumina.

11. The ignition coil device as claimed in claim 1, wherein the fillers are diffused only in the base material of the connector insulating resin material.

12. The ignition coil device as claimed in claim 11, wherein the fillers are inorganic fillers including one element

selected from the group consisting of crystalline silica, mica, talc, fused silica, and alumina.

13. The ignition coil device as claimed in claim 1, wherein a coefficient of linear expansion of the connector insulating resin material is smaller than a coefficient of linear expansion of the coil insulating resin material.

14. The ignition coil device as claimed in claim 1, wherein a coefficient of linear expansion of the connector insulating resin material is not less than 11 ppm/°C and less than 40 ppm/°C.

15. The ignition coil device as claimed in claim 1, wherein Young's modulus of the connector insulating resin material is smaller than Young's modulus of the coil insulating resin material.

16. The ignition coil device as claimed in claim 1, wherein Young's modulus of the connector insulating resin material is less than 8200 MPa.

17. The ignition coil device as claimed in claim 1, wherein an igniter is arranged in the connector insulating resin material.

18. The ignition coil device as claimed in claim 17, wherein the igniter is held by the connector terminal and is positioned in the connector insulating resin material.

19. The ignition coil device as claimed in claim 17, wherein the igniter is positioned in the connector insulating resin material by a protrusion formed on a top of a holder for centering the secondary spool.

20. A method of manufacturing an ignition coil device having a cylindrical secondary spool, a secondary coil wound around an outer peripheral surface of the secondary spool, a coil insulating resin material that is filled into spaces between the secondary windings, a primary spool arranged on an outer peripheral side of the secondary windings, a primary coil wound around an outer peripheral surface of the primary spool, a connector that is arranged on one end side in an axial direction of these parts and has a connector terminal electrically connected to the primary coil and the secondary coil, and a resin insulting material for connector that is filled into the connector, wherein a base material of the coil insulating resin material is the same as or different from a base material of the connector insulating resin material, the method comprising the steps of:

filling the coil insulating resin material into spaces between secondary windings of the secondary coil; and

filling the connector insulating resin material into the connector after filling the spaces between the secondary windings.

21. The method of manufacturing an ignition coil device as claimed in claim 20, wherein kinematic viscosity of the connector insulating resin material at the time of filling is higher than kinematic viscosity of the coil insulating resin material at the time of filling.